

REMARKS

Applicants acknowledge the indication of the allowability of the subject matter of Claim 8, as set forth at page 5 of the Office Action. In particular, Claim 8 would be allowable if rewritten in independent form. However, for the reasons set forth hereinafter, Applicants respectfully submit that Claim 8 is allowable in its present dependent form.

Claims 3-7 have been rejected under 35 U.S.C. §112, second paragraph, for failing to particularly point out and distinctly claim the invention, based on certain formal issues identified on page 2 of the Office Action. In response to these grounds of rejection, Applicants have amended Claim 3 in a manner which addresses and is believed to resolve the cited formal issues. In addition, Applicants have reviewed and revised each of the remaining claims in order to place them into better form for prosecution in the United States, and to resolve any possible additional formal issues regarding those claims. Accordingly, reconsideration and withdrawal of this ground of rejection is respectfully requested.

Claims 1 through 5 have been rejected under 35 U.S.C. §103(a) as unpatentable over Ozawa et al (European patent document EP 1167165) in view of Peter (U.S. Patent No. 4,566,407). In addition, Claims 6 and 7 have been rejected under 35 U.S.C. §103(a) as unpatentable over Ozawa et al and Peter,

and further in view of Attinger et al (German patent document DE 196 30 899 C1). However, for the reasons set forth hereinafter, Applicants respectfully submit that all claims which are of record in this application, including new Claims 9-16, distinguish over the cited references, and are allowable.

The present invention is directed to an air control system for controlling the flow of air from the front grill of an automobile into the vehicle engine compartment. For this purpose, as recited in Claim 1, the air control system according to the invention includes air ducts which guide a cooling air flow into the engine compartment. The latter ducts are defined by boundary walls which are disposed approximately parallel to the direction of air flow, and are integrated into a body panel, which extends approximately transversely to the direction of air flow and has openings that open to the air ducts. The latter openings are also disposed at least partially in an area covered by air passages in the front grill (referred to in Claim 1 as a "front end wall").

According to a feature of the invention, the body panel is "mounted and suspended from the cooling module" within the front end of the vehicle. In addition, Claim 1 further specifies that the boundary walls which define the ducts project from perimeter areas adjacent to the openings in the body panel, and have circumferential sealing flanges at their free ends.

New Claim 9, on the other hand, defines an air control system for the front end of a motor vehicle which includes a body panel that extends essentially transversely to a longitudinal axis of a body of the vehicle, and a plurality of air ducts which are in communication with openings in the body panel. The air ducts are configured to guide a flow of air from air passages in the front end wall of the vehicle into the motor compartment, and are defined by bounding walls that are integrated into the body panel. In addition, Claim 9 further recites that the air control system also includes mounting means for supporting the body panel in the front end of the vehicle, which mounting means consist of “mounting eyes in said body panel, by which said body panel is suspended on projections in the cooling unit”.

The latter feature of the invention is described in paragraphs [0021] and [0030] of the Substitute Specification. As noted in paragraph [0039], it is especially advantageous that the body panel 1 is “simply suspended by its mount eyes 14 on projections of the cooling module 22”. As a result, it requires no additional fastening of the body panel after the cooling module is mounted in the front end in this manner. Thus, this arrangement makes the installation of the body panel and the ducts integrated therein quite simple and efficient: as noted in paragraph [0005], the body panel can be swung as a preassembled unit into the front end, together with a cooling module, without need for additional sealing

of the air ducts externally to one another. The latter features of the invention are not taught or suggested by the cited references.

The Ozawa et al reference, in particular, discloses a front end structure for a motor vehicle which includes a front end panel 400 (Figure 1) that includes a duct structure for preventing air introduced from a grill opening 452 from bypassing cooling units 100, 200 as it passes through the front end of the vehicle. To this extent, it is similar to the present invention. (See Figure 2.)

An important difference between the Ozawa et al structure and the present invention, however, resides in the manner in which the front end panel 400 and the heat exchanger 200 are installed in the front of the vehicle. In particular, as noted in paragraph [0006] (Column 1, lines 53-55), in Ozawa et al, the two cooling units (radiator 100 and heat exchanger 200) are “fixed to the front end panel” 400. In turn, as noted in paragraph [0010] (Column 2, lines 46-49), the front end panel itself is “fixed on the vehicle body (600) at the vehicle front end portion to constitute a vehicle structural member”.

The mounting arrangement in Ozawa et al is thus opposite to that of the present invention, and requires a fundamentally different installation technique. That is, (as noted) the body panel of the present invention “can be swung as a preassembled unit into the front end” as recited in Claim 1, because the body panel is simply suspended from the cooling module. Thus, the assembly is very

simple. On the other hand, in Ozawa et al, the cooling units 100, 200, are fixed to the front end panel, which in turn is fixed on the vehicle body and constitutes a vehicle structural member. This can be seen in Figures 1 and 5, which show a flange at either side of the lower opening 462, which (as appears from Figure 1) has holes that mate holes in the vehicle body 600. Accordingly, since the heat exchangers 100, 200 are in fact supported on the front end panel 400, it follows that the front end panel 400 cannot be mounted simply by suspending it from the cooling units. Accordingly, any proposed modification of Ozawa et al to provide that the front end panel 400 is “suspended from” the cooling module, would require a fundamental modification of Ozawa et al in a manner which is not apparent.

The latter feature of the invention is recited in new Claim 9 in the forms of “means plus function”. In particular, Claim 9 recites that the air control system includes “mounting means for supporting said body panel in said front end of the vehicle” with the mounting means “consisting of mounting eyes in said body panel by which said body panel is suspended on projections in said cooling unit”. As noted in paragraph [0030] of the specification, the body panel thus requires no additional fastening after being mounted in the front end of the vehicle in this manner. Accordingly, Claim 9 recites that the means for mounting consists of mounting eyes by which the body panel is suspended on projections in the cooling unit.

The Office Action indicates at page 3 that Ozawa et al does not explicitly detail the connection between the body panel and the cooling module. While Applicants agree that the details of the connection are not discussed, as noted previously, Ozawa et al does indicate that the radiator 100 and heat exchanger 200 are in fact “fixed to the front end panel” and not vice versa. Moreover, as noted previously, the front end panel is fixed on the vehicle body in such a manner as to constitute a “vehicle structural member”.

The features of the invention as described above, which are not found in Ozawa et al, are said, however, to be supplied by the Peter reference, which discloses a vehicle having at least two radiators (reference numerals 8 and 9 in Figure 2) and an air guidance system for guiding a cooling air stream to the respective radiators. In Peter, however, two separate air guide housings 24, 36 are provided, as can be seen, for example, in Figure 2. (Column 3, lines 60-63.) That is, the upper air duct 15 is defined by an air guide housing 36, while the lower air duct 14 is defined by an air guide housing 24. (See, for example, Column 1, lines 51-56; and Column 3, lines 25-29 and 47-52.) As can be seen from Figure 3, for example, the upper air guide housing 36 (and presumably the lower air guide housing 24, which cannot be seen in Figure 3) does not take the form of a body panel at all. Rather, a comparison of Figures 2 and 3 shows that they merely constitute ducts which are disposed toward the middle of the vehicle. Moreover, while Peter also does not discuss the manner in which the respective

ducts are actually attached within the front end of the vehicle, it is clear that they are in fact supported at both of their front and rear ends within the vehicle. (See, for example, Column 1, lines 53-54.) Thus, at Column 3, lines 25-29, the specification indicates that the lower air guide housing 24 is “detachably connected to webs 25 and 26” of the bumper cover 18. The specification does not indicate how the rearward end of the air guide housing 24 is supported.

The front end of the air guide 36 extends into a space 38 between upper and lower portions of a support 19 for the bumper 5, and is “held in that position without additional fastening means, the upper and lower wall sections of air guide housing 36 being locally supported on the insides of support 19”. The specification also indicates that the rearward end of the air guide housing 36 is connected to the radiator 9, although once again there is no indication of how such connection is achieved.

In view of all of the foregoing, Applicants respectfully submit that a combination of the disclosures in Peter and Ozawa et al would not replicate the present invention. In particular, it would not provide an air control system in which the body panel is “mounted to and suspended from the cooling module” as recited in Claim 1. Moreover, it would not include “mounting means for supporting said body panel in said front end of the vehicle, said mounting means consisting of mounting eyes in said body panel by which the body panel is

suspended on projections in said cooling unit”, as recited in Claim 9. The latter features of the invention are neither taught nor suggested by either reference.

In this regard, it is also important to note that the Ozawa et al reference itself affirmatively teaches away from any such modification, because, as noted previously, in the Ozawa et al structure, the heat exchangers 100, 200 are in fact mounted on the front end panel 400, which in turn is rigidly connected to the vehicle body. Accordingly, even assuming that a person skilled in the art were to consider modifying the Ozawa et al structure in view of the disclosure in Peter, it is not at all apparent how such a modification would or could be affected without fundamental changes in the structure of the Ozawa et al system. At the very least, any such modification would require inventive activity.

Finally, the Attinger et al reference has been cited only in respect of Claims 6 and 7, as disclosing a round opening located to one side of an upper opening. Accordingly, Applicants respectfully submit that Attinger et al does not contain any disclosure which would provide or suggest those features of the invention which are missing in both Ozawa et al and Peter, as described above.

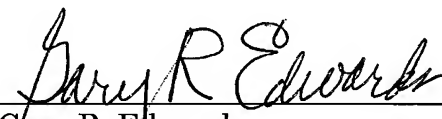
In light of the foregoing remarks, this application should be in consideration for allowance, and early passage of this case to issue is respectfully requested. If there are any questions regarding this amendment or the

application in general, a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application for all concerned.

If necessary to effect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to effect a timely response, and please charge any deficiency in fees or credit any overpayments to Deposit Account No. 05-1323 (Docket #095309.56086US).

Respectfully submitted,

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